

# **NCDOT Transformation Update for Joint Legislative Transportation Oversight**

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Presented by  
Roberto Canales, P.E.

March 18, 2008

## NCDOT Transformation Update

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- Transformation Approach – Roberto Canales, PE
- Key Transformation Initiatives – Roberto Canales, PE
- Strategic Direction – Mark Tyler, PMP
- Planning and Prioritization – Joey Hopkins, PE
- Program and Project Delivery – Terry Gibson, PE
- Performance and Accountability – Victor Barbour, PE
- Improved Human Resources – Anthony Roper, PE
- Closing & Open Discussion – Roberto Canales, PE

# NCDOT Transformation Approach

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- McKinsey Diagnostic identified key transformation initiatives
- McKinsey trained NCDOT TMT staff
- Leveraged Proven Management Practices
  - General Electric
  - SAS
  - Office of State Personnel
  - UNC-Healthcare
  - Other State DOT's
  - Other NC State Agencies
- In Depth Analysis: Workstreams
- Engaged staff across organization
- Outreach to partners
  - MPO's
  - League of Municipalities
  - Association of County Commissioners
  - Industry Partners (AGC, ACEC)
  - FHWA

# Key Transformation Initiatives

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**Strategic Direction**

**Planning and Prioritization**

**Program and Project Delivery**

**Performance and Accountability**

**Improved Human Resource Mgt**

## Alignment of Strategic Direction with New Mission and Goals

- ✓ New Mission, Goals and Values
- ✓ Strategic leadership roles identified
- ✓ Completed comprehensive organizational assessment of all business units

# Mission, Goals and Values

## NCDOT

### OUR MISSION

*Connecting people and places  
in North Carolina – safely and  
efficiently, with accountability  
and environmental sensitivity*

### OUR GOALS

- Make our transportation network **safer**
- Make our transportation network move people and goods more **efficiently**
- Make our infrastructure **last longer**
- Make our organization a place that **works well**
- Make our organization **a great place to work**



### OUR VALUES

- **SAFETY** - We strive for safety throughout our transportation networks as well as in our work and our daily lives.
- **CUSTOMER SERVICE** - We respond to our customers, both internal and external, in an open, professional and timely manner.
- **INTEGRITY** - We earn and maintain trust by responsibly managing the states assets, acting ethically, and holding ourselves accountable for our actions.
- **DIVERSITY** - We draw strength from our differences and work together in a spirit of teamwork and mutual respect.
- **QUALITY** - We pursue excellence in delivering our projects, programs, services and initiatives.

## Strategic Leadership Roles Identified

- ✓ Top 150 Leadership roles identified
  - **40 Leadership**
  - **110 Subordinates**
- ✓ Chief Operating Officer
- ✓ Strategic Planning Director
- ✓ Inspector General
- ✓ Bridge Program Manager
- ✓ Talent (HR) Strategist

## Status

- Existing roles and positions
  - **Leadership planning**
  - **Accountability**
- Position requirement developed
  - **Chief Deputy Secretary position**  
to transition to (
- Position approved and filled
- Position approved
- Bridge Maint. role being modified
- Position approved

## Business Unit Assessment

- ✓ Completed Comprehensive Organizational Assessment of All Business Units (BU):
  - Mission
  - End Products
  - Cost to Produce End Products
  - Efficiencies

## Status

- **Deep Dive**
  - Issues cross multiple BU
  - Facilitated by the TMT staff
  - TIP Delivery, Bridge, Mobility
- **Internal Efficiency**
  - Internal efficiencies proposed by BU
  - Facilitated by the BU itself
  - TMT member assigned to ensure completion
- **Training Opportunity**
  - Budget Accountability training
  - Project Management training
  - Managerial/Leadership training
- **Procedural Changes**
  - Suggestions for procedural changes



# Business Unit Assessment

## “Deep Dive”

### Deep Dive

✓ Office of Inspector General

### Status

- **NC HB Bill 1401, Internal Audit Act**
  - Established the Council of Internal Auditing
  - Requires the appointment of Audit Director that will report to agency head
- **NC HB 1551, State Government Accountability and Internal Control Act**
  - Establishes that the management of each agency bears full responsibility for establishing and maintaining proper internal controls
- **2006 Office of State Auditor Performance Report**
  - Significant Difficulties Completing Audits and Reports
  - Audit Plan not Risk based
  - Lack of Compliance with Peer Review recommendations
- **Organization Restructuring**

# Business Unit Assessment

## “Deep Dive”

### Deep Dive

- ✓ Information Technology Assessment

### Status

- Priorities / Governance
  - Aligned with Business Strategy
  - Technology Investment Decision
  - Project Monitoring & Oversight
- Data Integration
  - Improved Management Reporting
- Communication
- Technology Procurement
- Accountability
- Organization Restructuring

**Strategic Direction**

## **Business Unit Assessment**

### **“Deep Dive”**

#### **Other “Deep Dive”**

- ✓ **Bridge Program**
- ✓ **TIP Program**
- ✓ **Mobility Program**
- ✓ **Program/Project Delivery**
- ✓ **Transportation Planning**

## **Diagnostic Findings**

- Lack of formalized statewide, department-wide, long-term thinking, planning, and executing
- Little relationship exists between Department goals and staff level job duties and performance
- Too many, poorly selected priorities dilute focus, overtax resources, and slow delivery

## Accomplishment

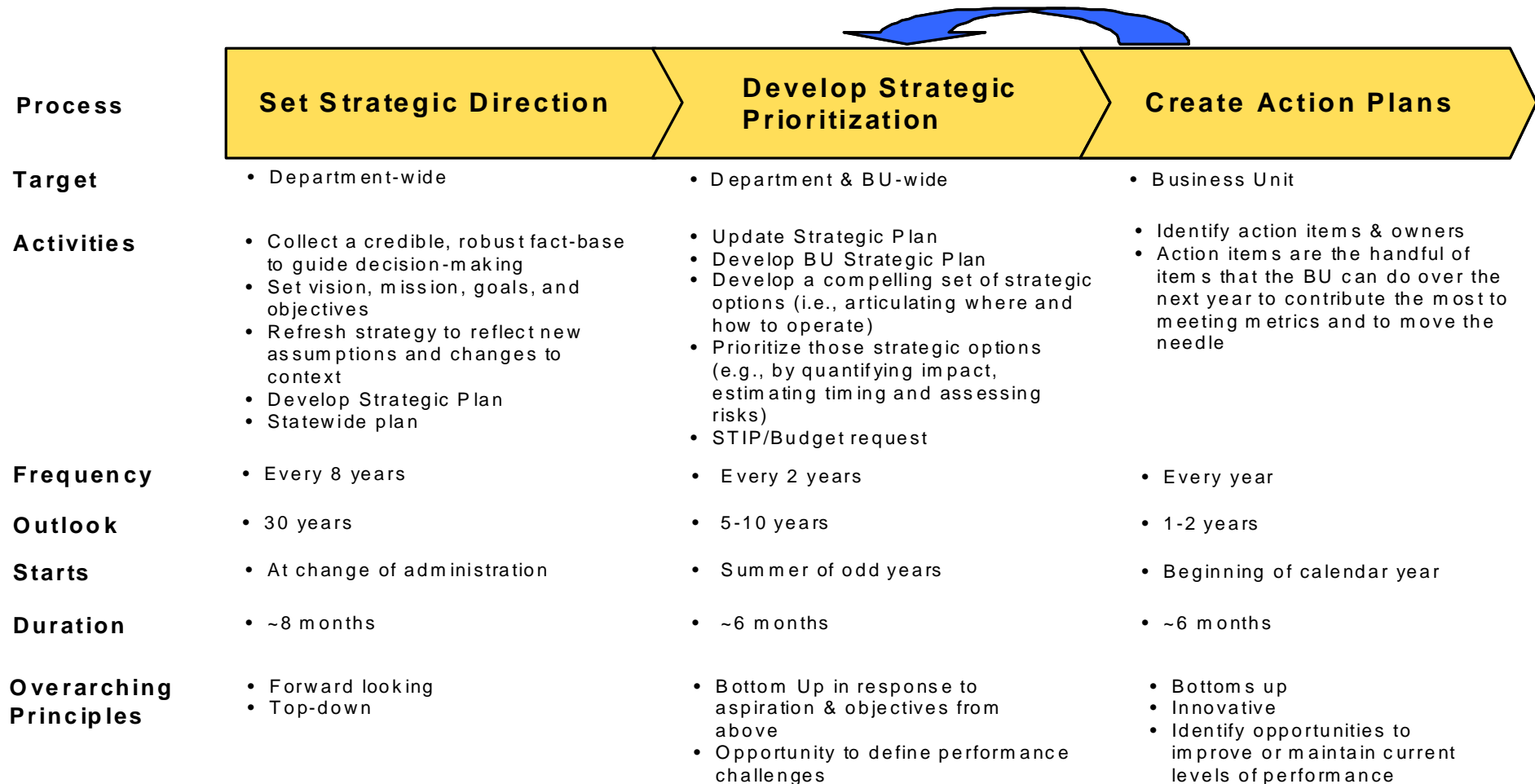
- ✓ Developed framework for strategic planning that aligns with mission and goals and is renewable
- ✓ Established new prioritization approach based on strategic priorities
- ✓ Introduced departmental leaders and stakeholders to conceptual strategic planning and prioritization process

## Key Deliverables

- Further Development of Strategic Planning and Prioritization Processes
- Continued Communication of Strategic Planning and Prioritization Processes to Key Stakeholders
- Continue Pilot of Action Planning Process
- Pilot Strategic Planning Process for Business Units

## NCDOT'S Strategic Planning Design Principles

*Monitor, Evaluate and Adjust Using Performance Metrics*



## Steps in Strategic Planning Process

### **Strategic Direction** **8 year**

- Assess Performance and Current and Future Operating Environment
- Develop Aspirations and Initiatives
- Gather Stakeholder Input
- Revisit Vision, Mission, Goals, Objectives, and Targets
- Update Long-Range Statewide Multimodal Transportation Plan

### **Strategic Prioritization** **2 year**

- Assess Performance and Current and Future Operating Environment
- Identify Needs (Business Unit and Transportation Infrastructure)
- Rank Needs (Projects, Services, Programs, and Initiatives) in Priority Order by Category
- **Consolidate, Evaluate, and Finalize Priorities (Unrestricted)**
- **Balance Funding with Priorities (Restricted)**
- **Finalize Budget Request and Draft and Final STIP**

### **Action Plan** **1 year**

- Review and Evaluate Performance
- Develop Draft Action Plan
- Finalize Action Plan and Launch
- Monitor Progress

## Accomplishments

- ✓ Created Strategic Planning Office (SPOT)
- ✓ Hired Strategic Planning Director

## Primary Functions

- Drive planning process
- Provide analysis of external environment and internal capabilities
- Provide information and recommendations on DOT priorities
- Collect, maintain, update and benchmark external environment data and best practices



## Diagnostic Findings

- Project design and delivery processes have been slowed by a lack of prioritization, accountability and coordination
- Organizational structure “silos” some of the key processes
- Internal and external communication systems have not been sufficiently proactive
- Budget resources may not have been adequately allocated to be effective

Develop more efficient and effective business processes

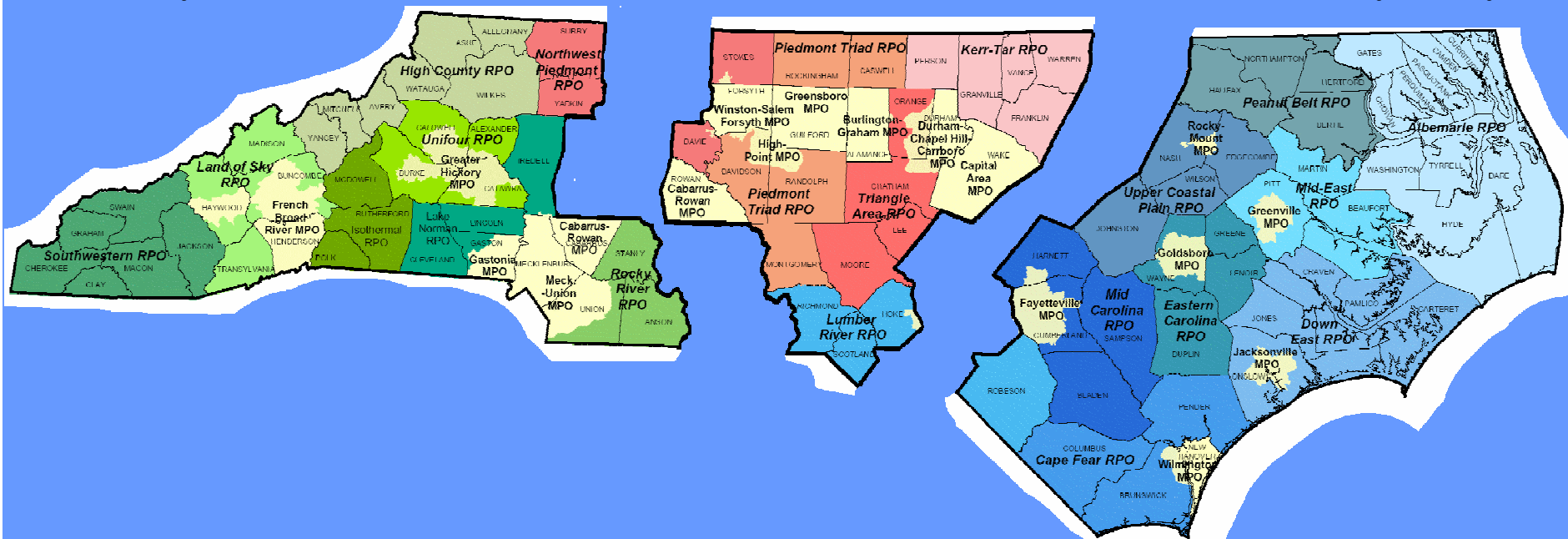
- Bridge Program
- TIP Program
- Mobility Program
- Program / Project Delivery
- Transportation Planning

- **Bridge Program Efficiency (in progress)**
  - Cut time by Two Years
  - Instituted Regional Teams
  - Developed on-site Scoping
  - Standard Design
  - Group Lettings
  - All resulting in Cost and Time Savings
- **TIP Projects**
  - Regionalization of Pre-Construction Functions to create teams
  - Piloting New Project Delivery Models on Select TIP Projects
  - Developing a realistic two-tier TIP

## Program & Project Delivery

# Program & Project Delivery

Region	Western	Central	Eastern
Division	10,11,12,13,14	5,7,8,9	1,2,3,4,6
STIP Staff	Van Argabright	Mike Stanley	Ray McIntyre
PDEA Staff	Teresa Hart	Eric Midkiff	Rob Hanson
Roadway Staff	Scott Blevins	Ron Allen	Dewayne Sykes



- **Piloting New Project Delivery Models**
  - Project Executives
  - Project Executives with formal teams
  - Tri-technical Managers
- **Develop two tier TIP – Developmental / Delivery**
  - Provides a measurable TIP with realistic delivery dates
  - Establishes delivery expectations and budget constraints
  - Sets achievable project expectations

- **Mobility Program**
  - Establishing Standard Measures of Congestion to Allow Prioritization of Mobility Needs
  - Identifying Alternative Multi-modal Approaches to Manage Congestion
  - Exploring Alternative Approaches to Planning for Future and Managing Existing Mobility Needs
- **Program Project Delivery**
- **Transportation Planning**

## Diagnostic Findings

- ✓ **There has been some implementation of performance management measures within business units, but those efforts are not explicitly linked to NCDOT nor other business unit priorities**
- ✓ **NCDOT's ad hoc nature of existing performance indicators sometimes leads to conflicting needs between units**

## Accomplishments to Date

- ✓ Developed NCDOT's **Value Tree** based on department's new mission and goals
- ✓ Developed **Key Performance Indicators** that align with new mission and goals
- ✓ Developed Performance **Metrics** for department leaders that align with new mission and goals
- ✓ Implemented preliminary public facing Executive Dashboard aligned with our mission and goals

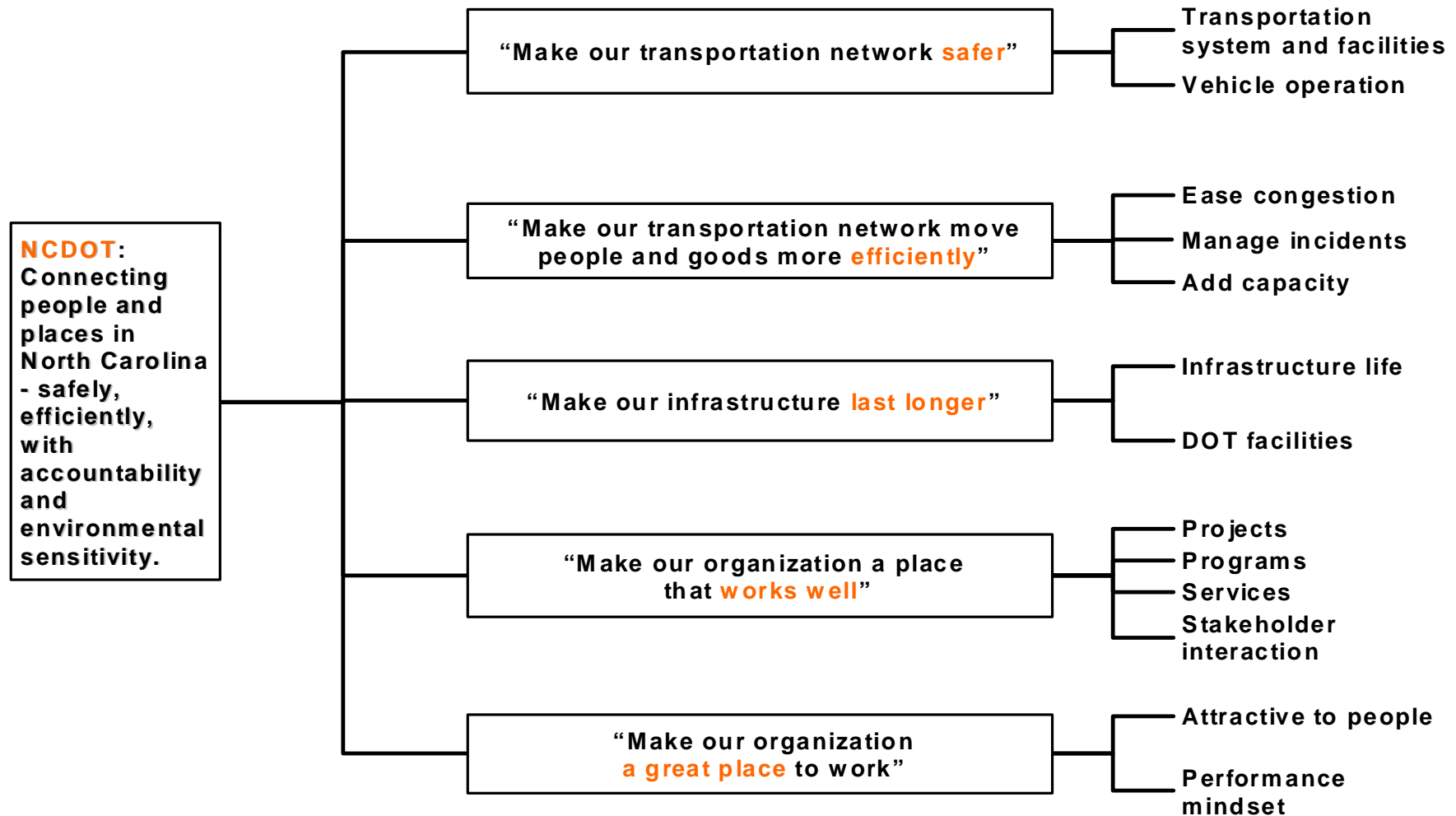
## Key Deliverables - Next 12 Months

- Complete development of performance targets for all goals
- Develop performance metrics for all NCDOT employees
- Educate all employees on new performance culture
- Develop a robust Executive Dashboard that will show progress towards accomplishing performance outcomes



## NCDOT HIGH-LEVEL VALUE TREE

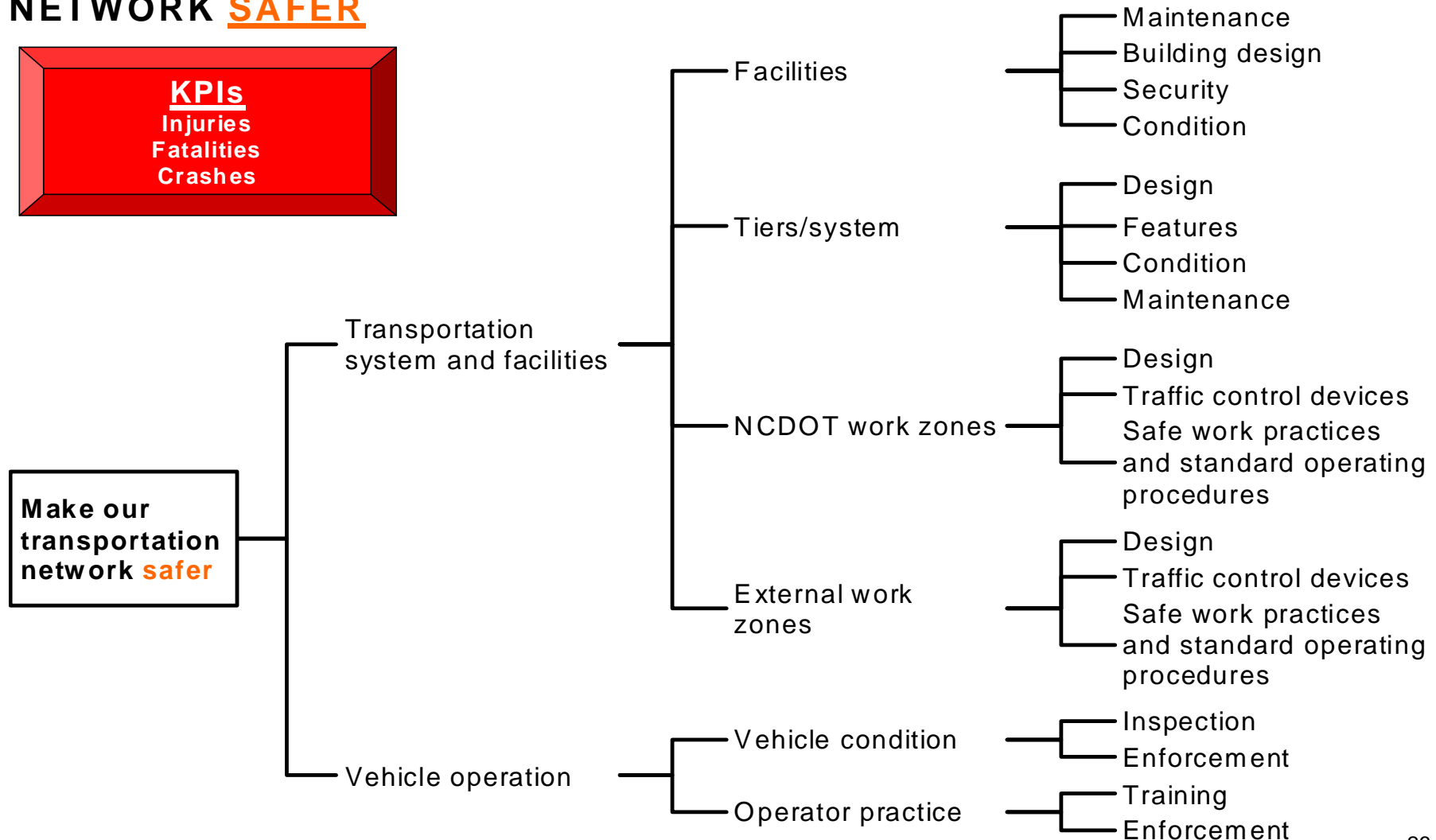
with Key Performance Indicators (KPIs)



## Performance and Accountability

# Performance and Accountability

## MAKE OUR TRANSPORTATION NETWORK SAFER



**Performance &  
Accountability**

# NCDOT Performance Dashboard

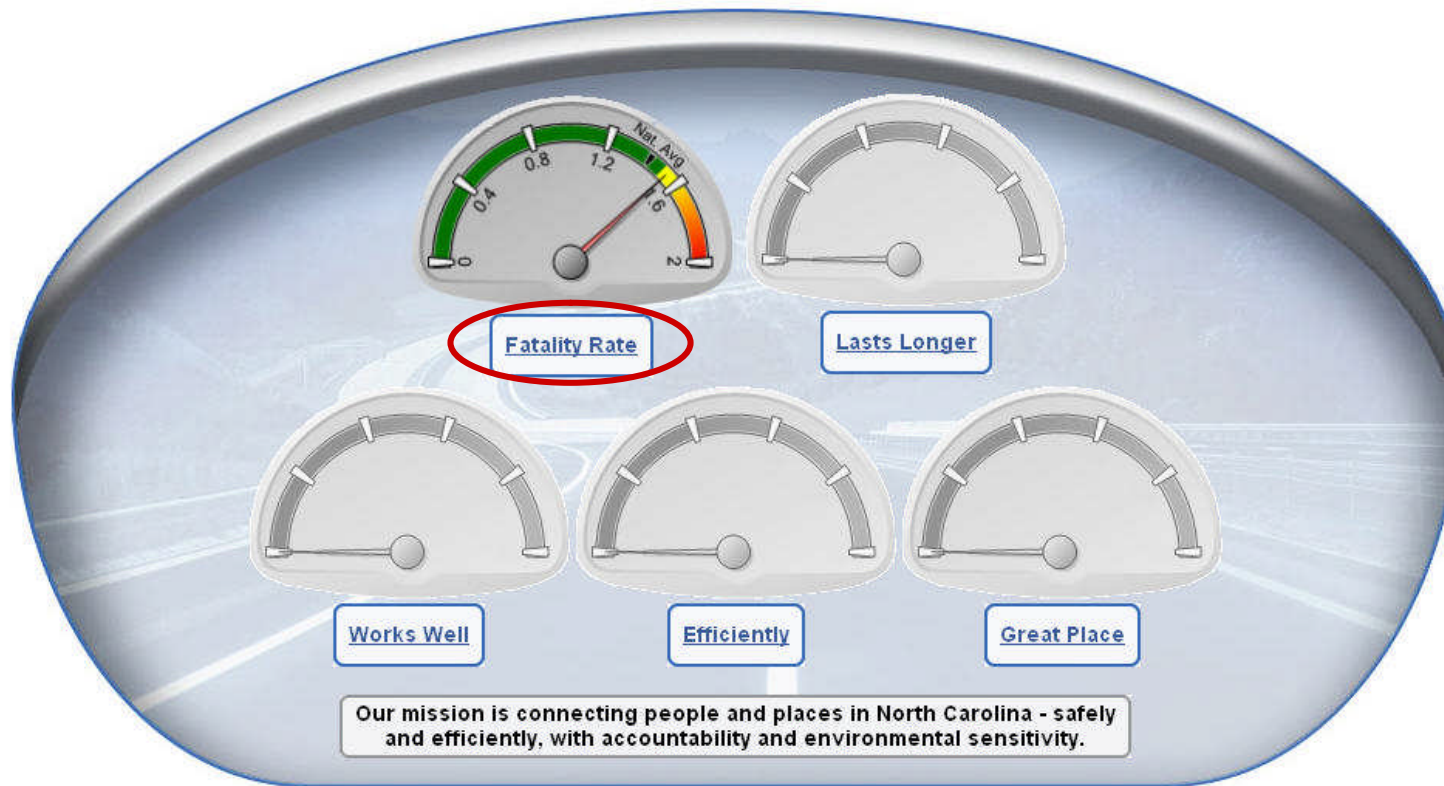
<http://www.ncdot.org/>

The screenshot shows the NCDOT website with the following elements:

- Header:** NCDOT North Carolina Department of Transportation logo and navigation links: About | Careers | Contact | News | Search! NCDOT
- Left Sidebar:** A vertical menu with links: [Doing Business with NCDOT](#), [Maps & Publications](#), [Programs](#), [Projects & Studies](#), and [Travel Information](#).
- Main Content Area:** A large banner for the "NCDOT Organizational Performance Dashboard" with the tagline "Connecting people and places in North Carolina." It features a clock icon and a "Click Here" link. Below the banner is a pagination indicator "1 / 19".
- Bottom Section:** A grid of five columns:
  - What's New:** Includes a clock icon and links for "Mission & Goals", "NCDOT McKinsey Report", and "NCDOT Ethics Policy".
  - Divisions:** Lists Aviation, Bicycle & Pedestrian, DMV, Ferry, Highways, Public Transportation, and Rail.
  - Business Resources:** Lists Approved Product List, Directory of Trans. Firms, Electronic Forms, Project Letting, Order Plans, and Order Publications.
  - Commuters & Travelers:** Lists Construction Projects, Driver License, HOV Lanes, Road Conditions, and Traffic Cameras.
  - Find Info Near You:** Includes a map of North Carolina and a "Select-A-County" dropdown menu.

# NCDOT Performance Dashboard

NCDOT Organizational Performance Dashboard



[More information on NCDOT's transformation and organizational performance efforts.](#)

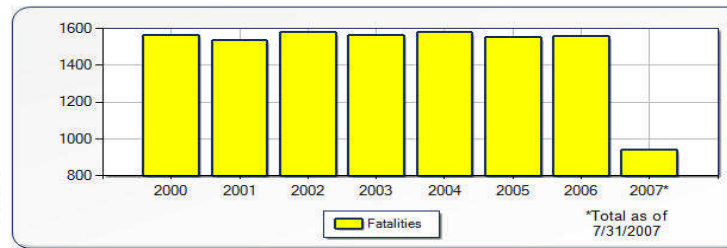
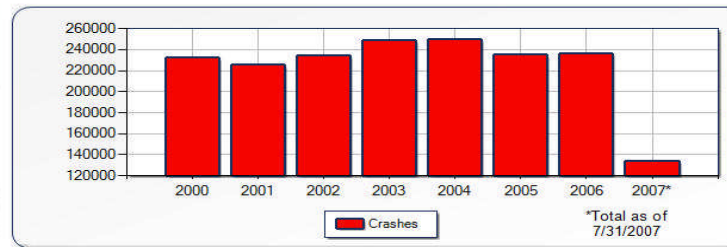
***Represents Overall Health of the Organization***

## Performance & Accountability

# Make Our Transportation Network “Safer”

### Crash Details statewide

Filter By:  
Statewide



#### Yearly Statistics

	2000	2001	2002	2003	2004	2005	2006	2007*
<b>Crashes</b>	231647	225607	234478	248564	249155	234816	236326	133556
<b>Fatalities</b>	1561	1533	1577	1561	1578	1550	1555	936
<b>Injuries</b>	38464	34070	33424	33337	34213	32192	30766	17547
<b>VMT (100MVM)</b>	892.46	915.71	936.86	937.63	956.27	1008.61	1016.48	610.14
	259.56	246.37	250.28	265.1	260.55	232.81	232.49	218.89
<b>Crash Rate</b>	1.75	1.67	1.68	1.66	1.65	1.54	1.53	1.53
<b>Fatality Rate</b>	43.1	37.21	35.68	35.55	35.78	31.92	30.27	28.76
<b>Injury Rate</b>								

1: VMT=Vehicle Miles Traveled, MVM=Million Vehicle Miles.

\* Total Year to Date

Data current as of: 7/31/2007

More information on [how we get these numbers](#).

## Performance and Accountability

# Performance and Accountability

PERFORMANCE METRICS  
FOR N.C. DEPARTMENT OF TRANSPORTATION

WORKING DRAFT 10/23/07

## SECRETARY OF TRANSPORTATION

	Metrics	Definition of Measure/Comments
"Make our transportation network safer"	<ul style="list-style-type: none"> <li>Fatalities</li> </ul>	<ul style="list-style-type: none"> <li>% improvement in fatalities compared to national goal of 1.0 fatality per 100 million vehicle miles traveled</li> </ul>
"Make our transportation network move people and goods more efficiently"	<ul style="list-style-type: none"> <li>Reliability on the System Strategic Highway Corridors and Regional Tier Routes</li> <li>Transit Service</li> </ul>	<ul style="list-style-type: none"> <li>Average operating speeds on Strategic Highway Corridors (SHC)</li> <li>Travel time reliability - standard deviation of average commuter time in selected urban areas</li> <li>% Decrease in congestion</li> <li>% Increase in frequency of service</li> </ul>
"Make our infrastructure last longer"	<ul style="list-style-type: none"> <li>Department Infrastructure Health</li> </ul>	<ul style="list-style-type: none"> <li>Statewide Level of Service scores for facilities (assets)</li> <li>% Increase in value of Department infrastructure</li> </ul>
"Make our organization a place that works well"	<ul style="list-style-type: none"> <li>Projects/Programs/Services on Schedule and on Budget</li> <li>Business Development and Outreach</li> <li>Customer Service</li> <li>Fiscal Management</li> </ul>	<ul style="list-style-type: none"> <li>% of projects/programs/service administered, managed and constructed on schedule and on budget (Planned vs. Actual)</li> <li>% of solicitations sent to, % of bids received from, &amp; % of contract dollars awarded to DBEs, MBEs, WBEs, SBEs, and HUBs</li> <li>Customer survey scores (public, partners, etc.)</li> <li>% improvement of existing administrative budget</li> </ul>
"Make our organization a great place to work"	<ul style="list-style-type: none"> <li>Employee Safety</li> <li>Employee Satisfaction</li> <li>Recruiting, Developing and Retaining Employees</li> </ul>	<ul style="list-style-type: none"> <li>Number of incidents, lost work days, worker's comp claims</li> <li>Employee satisfaction survey composite score</li> <li>Retention rate of "Top Performers" and/or stabilization rate</li> </ul>



## Performance and Accountability

# Performance and Accountability

## DASHBOARD SCORECARD

WORKING DRAFT 10/23/07

## STATE HIGHWAY ADMINISTRATOR

Metric	Metric Data	Target	Data Source	Wt (%)
Crash Rates	<i>Crashes per 100 million vehicle miles; this will be compared against a baseline TBD (% improvement)</i>	238-230	<i>Traffic Engineering Branch</i>	5
Reliability of Strategic Highway Corridor System	<ul style="list-style-type: none"> <li>-Average operating speeds on Strategic Highway Corridors (SHC)</li> <li>-Travel time reliability</li> <li>- Congestion (Level of Service)</li> </ul>		<i>Transportation Planning Branch</i>	
Statewide Infrastructure Health	<i>Composite Statewide Rating (Level of Service Rating)</i>	C- to C	<i>Asset Management -Maintenance Condition Reports</i>	30
Programs/Projects/Services on Schedule and on Budget	<i># of programs/projects/services planned for year divided by # actual completed = % success rate</i>	70-89%	<i>Program Development report from STaRS and / or BW, HiCAMS</i>	35
Business Development and Outreach	<i>% Contract dollars awarded to DBEs, MBEs, WBEs, SBEs, &amp; HUBs</i>	70-89%	SAP	10
Customer Service	<i>Customer Survey Scores</i>	70-89%	TBD	10
Fiscal Management	<i>% Improvement in Administrative Budget</i>	90-95%	TBD	5
Employee Safety	<i># of reported incidents that cause lost work days and / or worker's comp claims compared to baseline, i.e. previous year(s) reported incidents</i>	6.1-7	<i>Safety &amp; Loss Control</i>	5
Employee Satisfaction	<i>Employee Survey</i>		TBD	
Recruiting, Developing and Retaining Employees	<ul style="list-style-type: none"> <li>- % retention of employees that continuously meet or exceed expectations on their PDA's</li> <li>- Overall % of employees retained at the end of cycle vs. # of employees at beginning of cycle. (Retirement or positive movement within the Dept. does not negatively affect rating)</li> </ul>		TBD	

## Performance and Accountability

# Performance and Accountability

## DASHBOARD SCORECARD

WORKING DRAFT 10/24/07

### CHIEF ENGINEER - OPERATIONS

Metric	Metric Data	Target	Data Source	Wt (%)
Crash Rates	<i>Crashes per 100 million vehicle miles; this will be compared against a baseline TBD (% improvement)</i>	238-230	<i>Traffic Engineering Branch</i>	5
Reliability of Strategic Highway Corridor System and Regional Tiers	<i>-Average operating speeds on Strategic Highway Corridors (SHC) -Travel time reliability - Congestion (Level of Service)</i>		<i>Transportation Planning Branch</i>	
Statewide Infrastructure Health	<i>Composite Statewide Rating (Level of Service Rating)</i>	C- to C	<i>Asset Management -Maintenance Condition Reports</i>	35
Programs/Projects/Services on Schedule and on Budget	<i># of programs/projects/services planned for year divided by # actual completed = % success rate</i>	70-89%	<i>Program Development report from STaRS and / or BW, HiCAMS</i>	35
Business Development and Outreach	<i>% Contract dollars awarded to DBE's, MBEs, WBEs, SBEs, &amp; HUBs</i>	70-89%	SAP	10
Customer Service	<i>Customer Survey Scores</i>	90-95%	TBD	5
Fiscal Management	<i>% Improvement in Administrative Budget</i>	90-100%	TBD	5
Employee Safety	<i># of reported incidents that cause lost work days and / or worker's comp claims compared to baseline, i.e. previous year(s) reported incidents</i>	6.1-7.0	<i>Safety &amp; Loss Control</i>	5
Employee Satisfaction	TBD		<i>Employee Survey</i>	
Recruiting, Developing and Retaining Employees	<i>- % retention of employees that continuously meet or exceed expectations on their PDA's - Overall % of employees retained at the end of cycle vs. # of employees at beginning of cycle. (Retirement or positive movement within the Dept. does not negatively affect rating)</i>		TBD	



## Performance and Accountability

# Performance and Accountability

## DASHBOARD SCORECARD

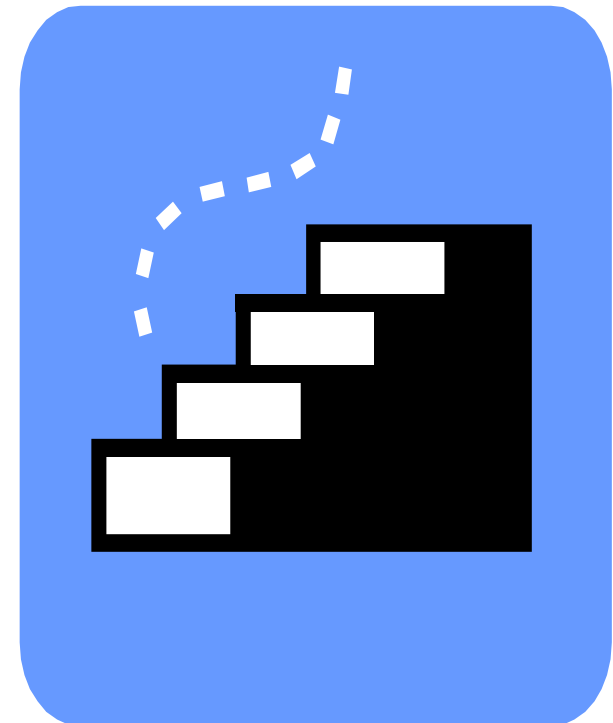
WORKING DRAFT 10-24-07

## DIRECTOR OF PRECONSTRUCTION

Metric	Metric Data	Target	Data Source	Wt (%)
Crash Rates	Crashes per 100 million vehicle miles; this will be compared against a baseline TBD (% improvement)	238-230	Traffic Engineering Branch	10
Level of Congestion on Strategic Highway Corridor System (SHC)	Miles of SHC at V/C ratio of 1.2 & above compared to total miles of SHC expresses as percentage		Transportation Planning Branch	
Delivery of Bridge Replacement Program	# of major milestones planned for year divided by # actual met = % success rate (CE, R/W, Let, Const Completed)	70-89%	Program Development report from STaRS and / or BW	15
Projects/Programs/Services on Schedule and on Budget	# of major milestones planned for year divided by # actual met = % success rate (CP's, EA, FONSI, EIS, PH's, R/W, Let, Constructed Completed)	70-89%	Program Development report from STaRS and / or BW	30
Project Scope	Once Cost Estimate Flow Chart and Scope Change Request processes are implemented, a metric needs to be developed to evaluate the performance	70-89%	TBD	15
Business Development and Outreach	% Contract dollars awarded to DBEs, MBEs, WBEs, SBEs, & HUBs	70-89%	SAP	10
Customer Service	Customer satisfaction surveys	70-89%	TBD	10
Fiscal Management	% improvement of existing administrative budget	90-95%	TBD	5
Employee Safety	# of reported incidents that cause lost work days and / or worker's comp claims compared to baseline, i.e previous year(s) reported incidents	6.1-7	Safety & Loss Control	5
Employee Satisfaction	Employee Survey		TBD	
Recruiting, Developing and Retaining Employees	- % retention of employees that continuously meet or exceed expectations on their PDA's - Overall % of employees retained at the end of cycle vs. # of employees at beginning of cycle. (Retirement or positive movement within the Dept. does not negatively affect rating)		TBD	

## New Performance Expectations Begin

- Top 150 Managers – April 2008
- All NCDOT Personnel – April 2009



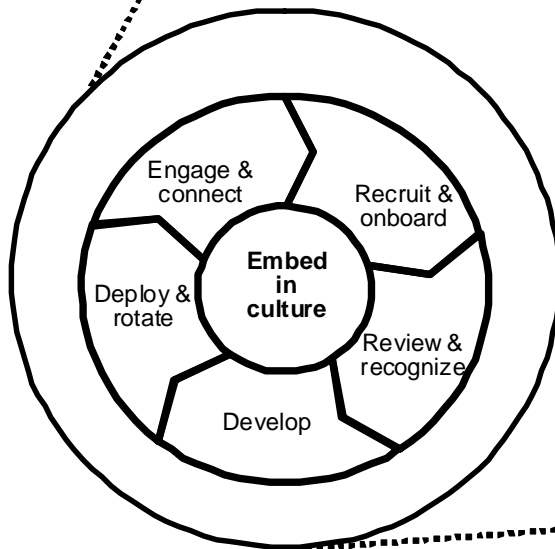
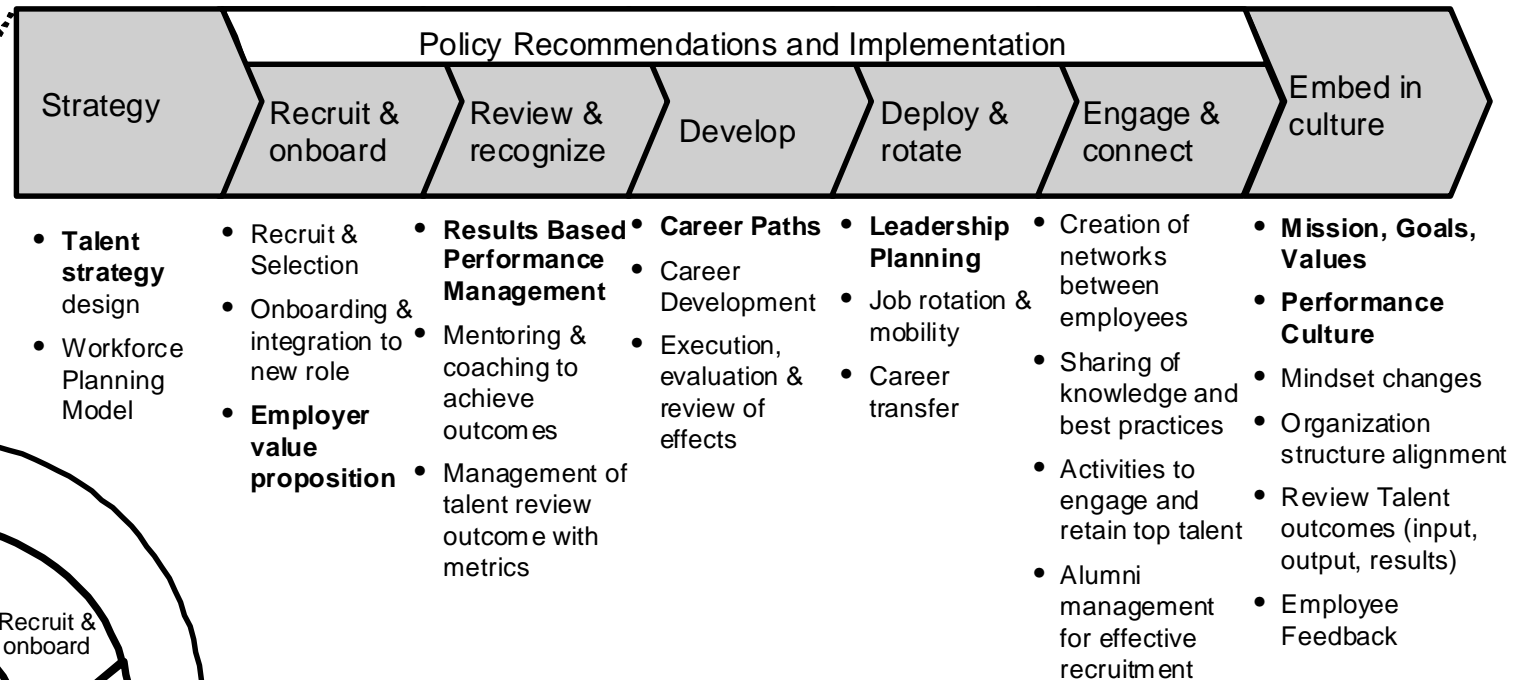
## Diagnostic Findings

- No formal process for talent (HR) planning
- Unable to hire the best talent
- Current performance evaluation system ineffective
- No strategic employee development process
- No strategy for talent to gain cross organizational knowledge

## Improved Human Resource Management

# Improved Human Resource Mgmt

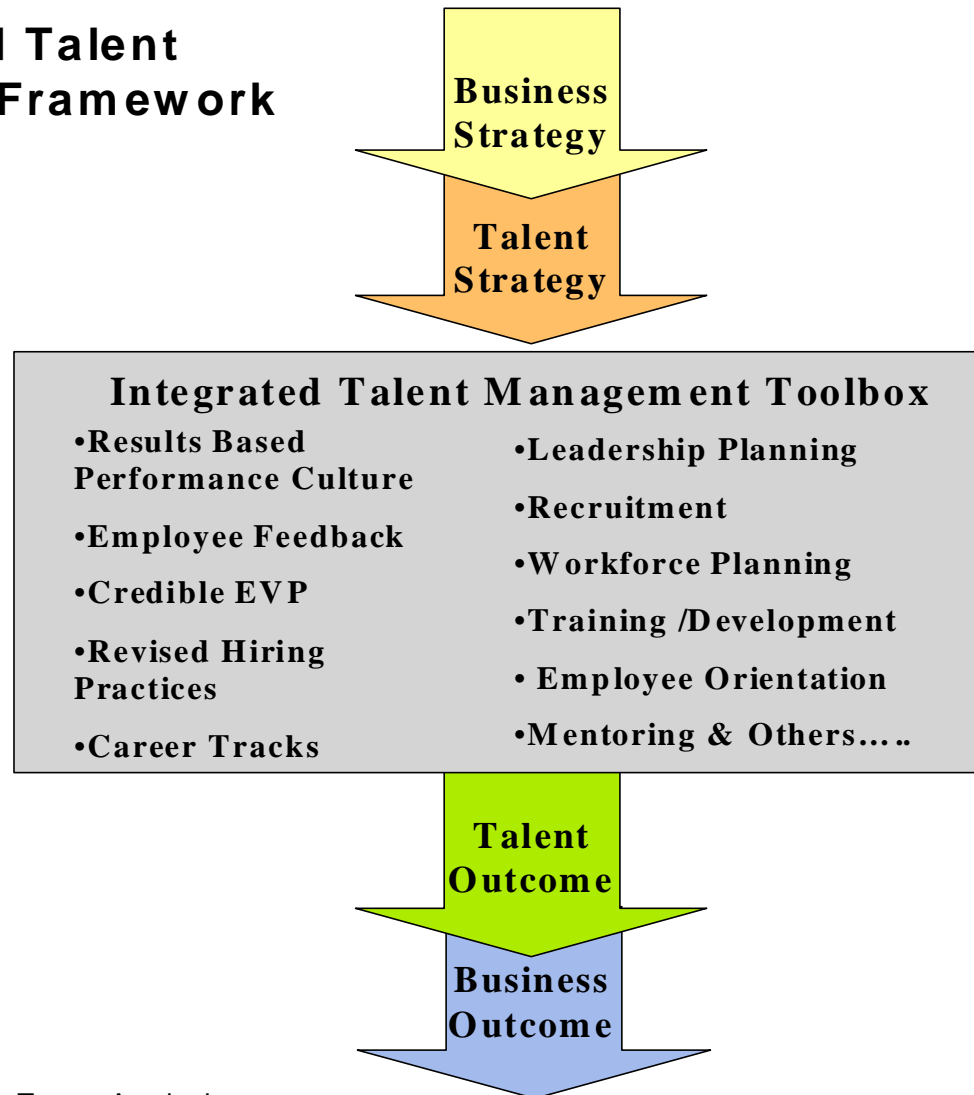
### TALENT MANAGEMENT



**Improved Human  
Resource  
Management**

# Improved Human Resource Mgmt

## Integrated Talent Management Framework



Source: Talent Strategy Team Analysis

## AREAS OF OSP AND NCDOT COLLABORATION

# Represents order of priority

■ Represents most important design/implementation efforts

Ideal number of additional OSP team members\*

Recommendation	Approach	Proposed team launch	TMT lead	NCDOT HR lead	Lead OSP advisor	Ideal number of additional OSP team members*
④ Define talent strategy framework/roles	Outline of framework and resources needed	October	Stephanie King	A Fanelli H Dickens	<b>Gerry Fisher</b>	<b>Kassia Elliott</b>
⑥ Revise hiring practices	High-level policy rec and implementation oversight	November	Teresa Pergerson	A Fanelli A Faulk A Simmons	N/A	N/A
③ Define and improve EVP	High-level policy rec and implementation oversight	September	Stephanie King	H Dickens T Gilbert	<b>Terry Hall</b> <b>Sharon Howard</b>	~1
① Revamp performance review	Design and implement in collaboration with OSP	August	T. Pergerson V. Barbour	P Broadhurst A Fanelli	<b>Lynn Summers</b>	~2-4
⑦ Revamp training program	High-level policy rec and implementation oversight	January	Anthony Roper	Bev Saylor	<b>Ann Cobb</b>	<b>Others as needed</b>
⑤ Develop employee career tracks	Policy recommendation; design in collaboration	November	Anthony Roper	H Dickens A Fanelli	<b>Janice McIntyre</b>	~1
② Develop leadership/succession planning	Design and implement in collaboration	August	Anthony Roper	P Bickham A Olive	<b>Gary Wiggins</b>	<b>Lynn S. Kathleen M.</b>
N/A Institute priority quick wins	Develop and implement policy recommendations	August	Stephanie King	H Henderson A Faulk	N/A	N/A

## Accomplishments:

- Completed Assessment of Current Personnel Practices and Developed Recommendations
- Designed and implemented a **rigorous performance review** process tied to performance metrics
- Trained Senior Leadership on new Performance Management System
- Designed process for **leadership planning**
- Made high level recommendations on **employee recruitment, development and retention**

## Improved Human Resource Management

# Improved Human Resource Mgmt

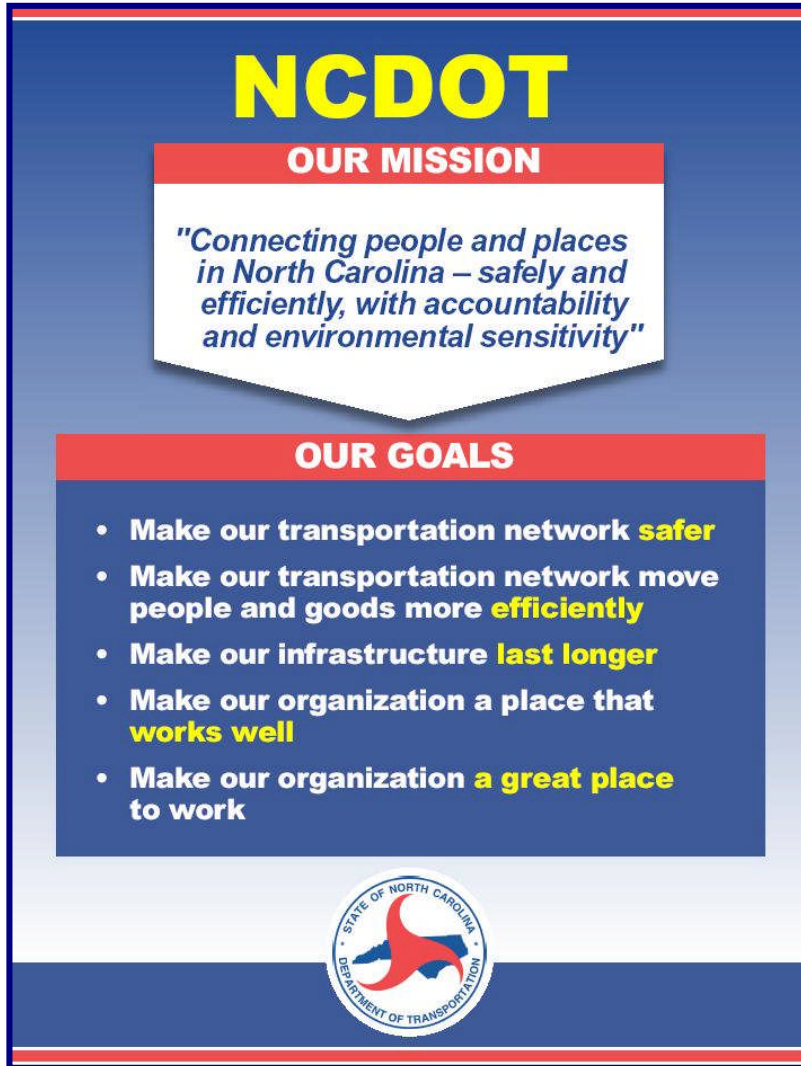


... the *right people* with the *right set of competencies* in the *right jobs* at the *right time* to enable the organization to accomplish its mission.





## It all comes down to...




**NCDOT**

**OUR MISSION**

*"Connecting people and places in North Carolina – safely and efficiently, with accountability and environmental sensitivity"*

**OUR GOALS**

- Make our transportation network **safer**
- Make our transportation network move people and goods more **efficiently**
- Make our infrastructure **last longer**
- Make our organization a place that **works well**
- Make our organization **a great place to work**



- Working Together for a Common Purpose
- Planning and Prioritizing our Work
- Delivering our Projects & Programs More Efficiently
- Measuring Our Performance
- Developing Our Employees
- Fulfilling our role of .....

“Connecting People and Places in North Carolina”